(b) treating the biological material that contains DNA with a DNA purifying reagent;

(c) purifying the DNA from the remainder of the biological material;

wherein the lysing reagent is bound to the solid support; wherein the lysing reagent is bound to the solid support and dried to the solid support.

55. A process for amplifying DNA sequences, wherein the process comprises the steps of:

B1 cont

(a) contacting a biological material that contains DNA with a solid support treated with a lysing reagent wherein the solid support has not contacted the biological material at the time of treatment;

(b) treating the biological material with a DNA purifying reagent;

(c) purifying the DNA; and

(d) applying the purified DNA to an amplification system,

wherein the lysing reagent is bound to the solid support and dried to the solid support.

56. The process of claim 1, wherein the lysing reagent comprises:

(a) a detergent effective to lyse the biological material sufficiently to release DNA;

(b) water; and optionally

(c) an RNA digesting enzyme.

57. The process of claim 1, wherein the lysing reagent comprises:

(a) a detergent effective to lyse the biological material sufficiently to release DNA;

(b) water; and optionally

(c) an RNA digesting enzyme; but

(d) does not contain a buffer.

58. The process of claim 1, wherein the lysing reagent comprises:

(a) a detergent effective to lyse the biological material sufficiently to release DNA;

(b) water; and optionally

(c) an RNA digesting enzyme; but

(d) does not contain a chelating agent.

B1 cont

59. The process of claim 1, wherein the lysing reagent comprises:

(a) a detergent effective to lyse the biological material sufficiently to release DNA;

(b) a chelating agent to reduce damage to DNA;

(c) water; and optionally

(d) an RNA digesting enzyme; but

(d) does not contain a buffer.

60. The process of claim 1, wherein the lysing reagent comprises:

(a) a detergent effective to lyse the biological material sufficiently to release DNA;

(b) a buffer;

(c) water; and optionally

(d) an RNA digesting enzyme; but

(e) does not contain a chelating agent.

B1 Concld

61. The process of claim 1, wherein the lysing reagent is anionic.

62. The process of claim 26, wherein the lysing reagent is anionic.

Please amend the claims as follows:

Sub C1 B2

1. (Amended) A process for characterizing DNA comprising [the] a step of isolating nucleic acids, wherein the step of isolating comprises the steps of:

(a) contacting a biological material that contains DNA with a solid support treated with a lysing reagent wherein the solid support has not contacted the biological material at the time of treatment;

(b) treating the biological material that contains DNA with a DNA purifying reagent; [and]

(c) purifying the DNA from the remainder of the biological material, wherein the lysing reagent is bound to the solid support [.] ; and

(d) analyzing the purified DNA,

wherein the lysing reagent is bound to the solid support and any unbound lysing reagent is removed from the solid support before the biological material is contacted with the solid support.

B3

4. (Twice Amended) The process according to claims 1 or 2, further comprising [the further] a step of heating the solid support to greater than 60 ^{o}C.

5. (Twice Amended) The method of claims 1 or 2, wherein the biological material is selected from the group consisting of eukaryotic cells, prokaryotic cells,

B3 cont

microbial cells, bacterial cells, plant cells, mycoplasma, protozoa, bacteria, fungi, viruses, and lysates and homogenates thereof.

B4

8. (Twice Amended) The process according to claim 5, further comprising [the] a step of counting eukaryotic cells when the biological material is eukaryotic cells before the biological material is contacted with a solid support.

9. (Twice Amended) The process according to claim 5, further comprising [the] a step of counting prokaryotic cells when the biological material is prokaryotic cells before the biological material is contacted with a solid support.

10. (Twice Amended) The process according to claim 5, further comprising [the] a step of counting viruses when the biological material is viruses before the biological material is contacted with a solid support.

B5

12. (Twice Amended) The process according to claims 1 or 2, wherein the isolating step further comprises [the] a step of analyzing the remainder of the biological material.

13. (Twice Amended) The process according to claim 11, wherein the analyzing step further comprises [the] a step of monitoring impurities.

14. (Twice Amended) The process according to claim 12, wherein the analyzing step further comprises [the] a step of monitoring impurities.

15. (Twice Amended) The process according to claims 1 or 2, further comprising [the] a step of quantitating the purified DNA.

16. (Twice Amended) The process according to claims 1 or 2, further comprising [the] a step of adjusting the concentration of DNA.

B5 cont

17. (Twice Amended) The process according to claims 1 or 2, further comprising [the] a step of evaluating the purified DNA.

18. (Amended) The process according to claim 17, wherein the step of evaluating the purified DNA further comprises [the] a step of determining the yield of purified DNA.

19. (Amended) The process according to claim 17, wherein the step of evaluating the purified DNA further comprises [the] a step of determining the size of the purified DNA or fragments thereof.

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20. (Amended) The process according to claim 17, wherein the step of evaluating the purified DNA further comprises [the] a step of determining the purity of DNA.

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21. (Amended) The process according to claim 17, wherein the step of evaluating the purified DNA further comprises [the] a step of digesting the purified DNA with a restriction enzyme or other DNA modifying enzyme.

22. (Amended) The process according to claim 17, wherein the step of evaluating the purified DNA further comprises [the] a step of analyzing the sequence of the purified DNA.

23. (Amended) The process according to claim 17, wherein the step of evaluating the purified DNA further comprises [the] a step of conducting a hybridization analysis on the purified DNA.

24. (Amended) The process according to claim 1, further comprising [the] a step of amplifying the purified DNA.

25. (Amended) The process according to claim 2, further comprising [the] a step of amplifying the purified DNA.

26. (Amended) A process for amplifying DNA sequences, wherein the process comprises the steps of:

(a) contacting a biological material that contains DNA with a solid support treated with a lysing [matrix] reagent wherein the solid support has not contacted the biological material at the time of treatment;

(b) treating the biological material with a DNA purifying reagent;

(c) purifying the DNA; and

applying the purified DNA to an amplification system, wherein the lysing reagent is bound to the solid support and any unbound lysing reagent is removed from the solid support before the biological material is contacted with the solid support.

28. (d) (Twice Amended) The process of claims 26 and 27, wherein the solid support is contained in a vessel, wherein the vessel is selected from [a] the group consisting of centrifuge tubes, spin tubes, syringes, cartridges, chambers, multiple-well plates, test tubes, and combinations thereof.

33. (Amended) The process of claims 26 or 27, wherein the solid support is selected from [a] the group consisting of cellulose, cellulose acetate, glass fiber, nitrocellulose, nylon, polyester, polyethersulfone, polyolefin, polyvinylidene fluoride, and combinations thereof.

37. The process of claim 33, wherein the lysing reagent comprises:

(a) a detergent effective to lyse the biological material sufficiently to release DNA;

(b) water; and optionally

(c) an RNA digesting enzyme.

38. The process of claim 33, wherein the lysing reagent comprises:

(a) a detergent effective to lyse the biological material sufficiently to release DNA;

(b) water; and optionally

(c) an RNA digesting enzyme; but

(d) does not contain a buffer.

B8 cont

39. The process of claim 33, wherein the lysing reagent comprises:

(a) a detergent effective to lyse the biological material sufficiently to release DNA;

(b) water; and optionally

(c) an RNA digesting enzyme; but

(d) does not contain a chelating agent.

40. The process of claim 33, wherein the lysing reagent comprises:

(a) a detergent effective to lyse the biological material sufficiently to release DNA;

(b) a chelating agent to reduce damage to DNA;

(c) water; and optionally

(d) an RNA digesting enzyme; but

(e) does not contain a buffer.

41. The process of claim 33, wherein the lysing reagent comprises:

(a) a detergent effective to lyse the biological material sufficiently to release DNA;

B8 cont

(b) a buffer;

(c) water; and optionally

(d) an RNA digesting enzyme; but

(e) does not contain a chelating agent.

B9

44. The process of claims 26 or 27, further comprising [the] a step of heating at greater than 60 C.

45. The process of claims 24 or 25, further comprising [the] a step of amplifying using an amplification system.

B10

47. The process of claims 26, 27, or 45, further comprising [the] a step of quantitating the amplified DNA.

48. The process of claims 26, 27, or 45, further comprising [the] a step of evaluating the amplified DNA.

B11

49. The process of claim 48, wherein the step of evaluating the amplified DNA further comprises [the] a step of determining the size of the amplified DNA.

50. The process of claim 48, wherein the step of evaluating the amplified DNA further comprises [the] a step of digesting the amplified DNA with a restriction enzyme.

51. The process according to claim 48, wherein the step of evaluating the amplified DNA further comprises [the] a step of sequencing the amplified DNA.

52. The process according to claim 48, wherein the step of evaluating the amplified DNA further comprises [the] a step of analyzing the sequence of the amplified DNA.